

## Publicaciones Observatorio Astronómico Nacional

### Año 2017

- Kelly G., Viti S., **García-Burillo S., Fuente A., Usero A.**, Krips M., Neri R.  
Molecular shock tracers in NGC 1068: SiO and HNC.  
Astronomy and Astrophysics, 597, A11, 01/2017  
<http://dx.doi.org/10.1051/0004-6361/201628946>
- Velilla Prieto L., Sánchez Contreras C., Cernicharo J., Agúndez M., Quintana-Lacaci G., **Bujarrabal V., Alcolea J.**, Balança C., Herpin F., Menten K. M., Wyrowski F.  
The millimeter IRAM-30 m line survey toward IK Tauri.  
Astronomy and Astrophysics, 597, A25, 01/2017  
<http://dx.doi.org/10.1051/0004-6361/201628776>
- **Santander-García M., Bujarrabal V., Alcolea J.**, Castro-Carrizo A., Sánchez Contreras C., Quintana-Lacaci G., Corradi R. L. M., Neri R.  
ALMA high spatial resolution observations of the dense molecular region of NGC 6302.  
Astronomy and Astrophysics, 597, A27, 01/2017  
<http://dx.doi.org/10.1051/0004-6361/201629288>
- Antonellini S., Bremer J., Kamp I., **Riviere-Marichalar P.**, Lahuis F., Thi W.-F., Woitke P., Meijerink R., Aresu G., Spaans M.  
Mid-IR water and silicate relation in protoplanetary disks.  
Astronomy and Astrophysics, 597, A72, 01/2017  
<http://dx.doi.org/10.1051/0004-6361/201527820>
- **Tafalla M.**, Su Y.-N., Shang H., Johnstone D., Zhang Q., Santiago-García J., Lee C.-F., Hirano N., Wang L.-Y.  
Anatomy of the internal bow shocks in the IRAS 04166+2706 protostellar jet.  
Astronomy and Astrophysics, 597, A119, 01/2017  
<http://dx.doi.org/10.1051/0004-6361/201629493>
- **Bujarrabal V.**, Castro-Carrizo A., **Alcolea J.**, Van Winckel H., Sánchez Contreras C., **Santander-García M.**  
A second post-AGB nebula that contains gas in rotation and in expansion: ALMA maps of IW Carinae.  
Astronomy and Astrophysics, 597, L5, 01/2017  
<http://dx.doi.org/10.1051/0004-6361/201629317>

- Dodson R., **Rioja M. J.**, Molina S. N., Gómez J. L.  
High-precision Astrometric Millimeter Very Long Baseline Interferometry Using a New Method for Multi-frequency Calibration.  
The Astrophysical Journal, 834, 177, 01/2017  
<http://dx.doi.org/10.3847/1538-4357/834/2/177>
- **Rioja M.**, Dodson R., Gómez J., Molina S., Jung T., Sohn B.  
The Power of (Near) Simultaneous Multi-Frequency Observations for mm-VLBI and Astrometry.  
Galaxies, 5, 9, 01/2017  
<http://dx.doi.org/10.3390/galaxies5010009>
- Busch G., Eckart A., Valencia-S. M., Fazeli N., Scharwächter J., Combes F., **García-Burillo S.**  
Star formation and gas flows in the centre of the NUGA galaxy NGC 1808 observed with SINFONI.  
Astronomy and Astrophysics, 598, A55, 02/2017  
<http://dx.doi.org/10.1051/0004-6361/201629440>
- Privon G. C., Aalto S., Falstad N., Muller S., González-Alfonso E., Sliwa K., Treister E., Costagliola F., Armus L., Evans A. S., **García-Burillo S.**, Izumi T., Sakamoto K., van der Werf P., Chu J. K.  
The Dense Molecular Gas and Nuclear Activity in the ULIRG IRAS 13120-5453.  
The Astrophysical Journal, 835, 213, 02/2017  
<http://dx.doi.org/10.3847/1538-4357/835/2/213>
- Leroy A. K., **Usero A.**, Schrubba A., Bigiel F., Kruijssen J. M. D., Kepley A., Blanc G. A., Bolatto A. D., Cormier D., Gallagher M., Hughes A., **Jiménez-Donaire M. J.**, Rosolowsky E., Schinnerer E.  
Millimeter-wave Line Ratios and Sub-beam Volume Density Distributions.  
The Astrophysical Journal, 835, 217, 02/2017  
<http://dx.doi.org/10.3847/1538-4357/835/2/217>
- Schinnerer E., Meidt S. E., Colombo D., Chandar R., Dobbs C. L., **García-Burillo S.**, Hughes A., Leroy A. K., Pety J., **Querejeta M.**, Kramer C., Schuster K. F.  
The PdBI Arcsecond Whirlpool Survey (PAWS): The Role of Spiral Arms in Cloud and Star Formation.  
The Astrophysical Journal, 836, 62, 02/2017  
<http://dx.doi.org/10.3847/1538-4357/836/1/62>
- **Jiménez-Donaire M. J.**, Cormier D., Bigiel F., Leroy A. K., Gallagher M., Krumholz M. R., **Usero A.**, Hughes A., Kramer C., Meier D., Murphy E., Pety J., Schinnerer E., Schrubba A., Schuster K., et al.  
13>CO/C18O Gradients across the Disks of Nearby Spiral Galaxies.  
The Astrophysical Journal, 836, L29, 02/2017

<http://dx.doi.org/10.3847/2041-8213/836/2/L29>

- **Querejeta M.**, Schinnerer E., **García-Burillo S.**, Bigiel F., Blanc G. A., Colombo D., Hughes A., Kreckel K., Leroy A., Meidt S. E., Meier D. S., Pety J., Sliwa K.  
AGN feedback in the nucleus of M 51 (Corrigendum).  
Astronomy and Astrophysics, 599, C1, 03/2017  
<http://dx.doi.org/10.1051/0004-6361/201628674e>
- **Rioja M. J.**, Dodson R., Orosz G., Imai H., Frey S.  
MultiView High Precision VLBI Astrometry at Low Frequencies.  
The Astronomical Journal, 153, 105, 03/2017  
<http://dx.doi.org/10.3847/1538-3881/153/3/105>
- Orosz G., Imai H., Dodson R., **Rioja M. J.**, Frey S., Burns R. A., Etoke S., Nakagawa A., Nakanishi H., Asaki Y., Goldman S. R., Tafuya D.  
Astrometry of OH/IR Stars Using 1612 MHz Hydroxyl Masers. I. Annual Parallaxes of WX Psc and OH138.0+7.2.  
The Astronomical Journal, 153, 119, 03/2017  
<http://dx.doi.org/10.3847/1538-3881/153/3/119>
- Castro-Carrizo A., **Bujarrabal V.**, Neri R., **Alcolea J.**, Sánchez Contreras C., **Santander-García M.**, Nyman L.-A.  
Structure and dynamics of the molecular gas in M 2-9: a follow-up study with ALMA.  
Astronomy and Astrophysics, 600, A4, 04/2017  
<http://dx.doi.org/10.1051/0004-6361/201630101>
- Mottram J. C., van Dishoeck E. F., Kristensen L. E., Karska A., San José-García I., Khanna S., Herczeg G. J., André P., Bontemps S., Cabrit S., Carney M. T., Drozdovskaya M. N., Dunham M. M., Evans N. J., Fedele D., ..., **Tafalla M.**, et al.  
Outflows, infall and evolution of a sample of embedded low-mass protostars. The William Herschel Line Legacy (WILL) survey.  
Astronomy and Astrophysics, 600, A99, 04/2017  
<http://dx.doi.org/10.1051/0004-6361/201628682>
- **Jiménez-Donaire M. J.**, Bigiel F., Leroy A. K., Cormier D., Gallagher M., **Usero A.**, Bolatto A., Colombo D., **García-Burillo S.**, Hughes A., Kramer C., Krumholz M. R., Meier D. S., Murphy E., Pety J., et al.  
Optical depth estimates and effective critical densities of dense gas tracers in the inner parts of nearby galaxy discs.  
Monthly Notices of the Royal Astronomical Society, 466, 49, 04/2017  
<http://dx.doi.org/10.1093/mnras/stw2996>

- Pereira-Santaella M., González-Alfonso E., **Usero A.**, **García-Burillo S.**, Martín-Pintado J., Colina L., Alonso-Herrero A., Arribas S., Cazzoli S., Rico F., Rigopoulou D., Storchi Bergmann T.  
First detection of the 448 GHz H<sub>2</sub>O transition in space.  
Astronomy and Astrophysics, 601, L3, 05/2017  
<http://dx.doi.org/10.1051/0004-6361/201730851>
- Goicoechea J. R., Cuadrado S., Pety J., Bron E., Black J. H., Cernicharo J., Chapillon E., **Fuente A.**, Gerin M.  
Spatially resolved images of reactive ions in the Orion Bar.  
Astronomy and Astrophysics, 601, L9, 05/2017  
<http://dx.doi.org/10.1051/0004-6361/201730716>
- Holdship J., Viti S., Jimenez-Serra I., Lefloch B., Codella C., Podio L., Benedettini M., Fontani F., **Bachiller R.**, **Tafalla M.**, Ceccarelli C.  
Erratum: H<sub>2</sub>S in the L1157-B1 bow shock<sup>\*</sup>.  
Monthly Notices of the Royal Astronomical Society, 467, 1818, 05/2017  
<http://dx.doi.org/10.1093/mnras/stx235>
- Palau A., Walsh C., Sánchez-Monge Á., Girart J. M., Cesaroni R., Jiménez-Serra I., **Fuente A.**, Zapata L. A., Neri R.  
Complex organic molecules tracing shocks along the outflow cavity in the high-mass protostar IRAS 20126+4104.  
Monthly Notices of the Royal Astronomical Society, 467, 2723, 05/2017  
<http://dx.doi.org/10.1093/mnras/stx004>
- Bianchi E., Codella C., Ceccarelli C., Fontani F., Testi L., **Bachiller R.**, Lefloch B., Podio L., Taquet V.  
Decrease of the organic deuteration during the evolution of Sun-like protostars: the case of SVS13-A.  
Monthly Notices of the Royal Astronomical Society, 467, 3011, 05/2017  
<http://dx.doi.org/10.1093/mnras/stx252>
- König S., Martín S., Muller S., Cernicharo J., Sakamoto K., Zschaechner L. K., Humphreys E. M. L., Mroczkowski T., Krips M., Galametz M., Aalto S., Vlemmings W. H. T., Ott J., Meier D. S., **Fuente A.**, et al.  
Subarcsecond imaging of the water emission in Arp 220.  
Astronomy and Astrophysics, 602, A42, 06/2017  
<http://dx.doi.org/10.1051/0004-6361/201630331>
- Hacar A., Alves J., **Tafalla M.**, Goicoechea J. R.  
Gravitational collapse of the OMC-1 region.  
Astronomy and Astrophysics, 602, L2, 06/2017  
<http://dx.doi.org/10.1051/0004-6361/201730732>

- Carleton T., Cooper M. C., Bolatto A. D., Bournaud F., Combes F., Freundlich J., **Garcia-Burillo S.**, Genzel R., Neri R., Tacconi L. J., Sandstrom K. M., Weiner B. J., Weiss A.  
PHIBSS: exploring the dependence of the CO-H<sub>2</sub> conversion factor on total mass surface density at  $z < 1.5$ .  
Monthly Notices of the Royal Astronomical Society, 467, 4886, 06/2017  
<http://dx.doi.org/10.1093/mnras/stx390>
- Sánchez Contreras C., Báez-Rubio A., **Alcolea J.**, **Bujarrabal V.**, Martín-Pintado J.  
A pilot search for mm-wavelength recombination lines from emerging ionized winds in pre-planetary nebulae candidates.  
Astronomy and Astrophysics, 603, A67, 07/2017  
<http://dx.doi.org/10.1051/0004-6361/201730385>
- Cuadrado S., Goicoechea J. R., Cernicharo J., **Fuente A.**, Pety J., **Tercero B.**  
Complex organic molecules in strongly UV-irradiated gas.  
Astronomy and Astrophysics, 603, A124, 07/2017  
<http://dx.doi.org/10.1051/0004-6361/201730459>
- Alonso-Martínez M., **Riviere-Marichalar P.**, Meeus G., Kamp I., Fang M., Podio L., Dent W. R. F., Eiroa C.  
Herschel GASPS spectral observations of T Tauri stars in Taurus. Unraveling far-infrared line emission from jets and discs.  
Astronomy and Astrophysics, 603, A138, 07/2017  
<http://dx.doi.org/10.1051/0004-6361/201629005>
- Caselli P., Bizzocchi L., Keto E., Sipilä O., **Tafalla M.**, Pagani L., Kristensen L. E., van der Tak F. F. S., Walmsley C. M., Codella C., Nisini B., Aikawa Y., Faure A., van Dishoeck E. F.  
NH<sub>3</sub> (10-00) in the pre-stellar core L1544.  
Astronomy and Astrophysics, 603, L1, 07/2017  
<http://dx.doi.org/10.1051/0004-6361/201731121>
- Gozzard D. R., Schediwy S. W., Dodson R., **Rioja M. J.**, Hill M., Lennon B., McFee J., Mirtschin P., Stevens J., Grainge K.  
Astronomical Verification of a Stabilized Frequency Reference Transfer System for the Square Kilometer Array.  
The Astronomical Journal, 154, 9, 07/2017  
<http://dx.doi.org/10.3847/1538-3881/aa6db1>
- Friesen R. K., Pineda J. E., co-PIs, Rosolowsky E., Alves F., **Chacón-Tanarro A.**, How-Huan Chen H., Chun-Yuan Chen M., Di Francesco J., Keown J., Kirk H., Punanova A., Seo Y., Shirley Y., Ginsburg A., et al.  
The Green Bank Ammonia Survey: First Results of NH<sub>3</sub> Mapping of the Gould Belt.

The Astrophysical Journal, 843, 63, 07/2017

<http://dx.doi.org/10.3847/1538-4357/aa6d58>

- Lefloch B., Ceccarelli C., Codella C., Favre C., Podio L., Vastel C., Viti S., **Bachiller R.**  
L1157-B1, a factory of complex organic molecules in a solar-type star-forming region.  
Monthly Notices of the Royal Astronomical Society, 469, L73, 07/2017  
<http://dx.doi.org/10.1093/mnras/slx050>
- Tapia T., Eliche-Moral M. C., Aceves H., Rodríguez-Pérez C., Borlaff A., **Querejeta M.**  
Formation of S0 galaxies through mergers. Evolution in the Tully-Fisher relation since  $z \sim 1$ .  
Astronomy and Astrophysics, 604, A105, 08/2017  
<http://dx.doi.org/10.1051/0004-6361/201628821>
- Roberts-Borsani G. W., **Jiménez-Donaire M. J.**, Daprà M., Alatalo K., Aretxaga I., Álvarez-Márquez J., Baker A. J., Fujimoto S., Gallardo P. A., Gralla M., Hilton M., Hughes J. P., Jiménez C., Laporte N., Marriage T. A., et al.  
Multiwavelength Characterization of an ACT-selected, Lensed Dusty Star-forming Galaxy at  $z = 2.64$ .  
The Astrophysical Journal, 844, 110, 08/2017  
<http://dx.doi.org/10.3847/1538-4357/aa7aa8>
- Chandar R., Chien L.-H., Meidt S., **Querejeta M.**, Dobbs C., Schinnerer E., Whitmore B. C., Calzetti D., Dinino D., Kennicutt R. C., Regan M.  
Clues to the Formation of Spiral Structure in M51 from the Ages and Locations of Star Clusters.  
The Astrophysical Journal, 845, 78, 08/2017  
<http://dx.doi.org/10.3847/1538-4357/aa7b38>
- Matsuura M., Indebetouw R., Woosley S., **Bujarrabal V.**, Abellán F. J., McCray R., Kamenetzky J., Fransson C., Barlow M. J., Gomez H. L., Cigan P., De Looze I., Spyromilio J., Staveley-Smith L., Zanardo G., et al.  
ALMA spectral survey of Supernova 1987A - molecular inventory, chemistry, dynamics and explosive nucleosynthesis.  
Monthly Notices of the Royal Astronomical Society, 469, 3347, 08/2017  
<http://dx.doi.org/10.1093/mnras/stx830>
- Fontani F., Ceccarelli C., Favre C., Caselli P., Neri R., Sims I. R., Kahane C., Alves F. O., Balucani N., Bianchi E., Caux E., Jaber Al-Edhari A., Lopez-Sepulcre A., Pineda J. E., **Bachiller R.**, et al.  
Seeds of Life in Space (SOLIS). I. Carbon-chain growth in the Solar-type protocluster OMC2-FIR4.

Astronomy and Astrophysics, 605, A57, 09/2017  
<http://dx.doi.org/10.1051/0004-6361/201730527>

- **Jiménez-Donaire M. J.**, Meeus G., Karska A., Montesinos B., Bouwman J., Eiroa C., Henning T.  
Herschel observations of the circumstellar environments of the Herbig Be stars R Mon and PDS 27.  
Astronomy and Astrophysics, 605, A62, 09/2017  
<http://dx.doi.org/10.1051/0004-6361/201629053>
- Rizzo J. R., **Tercero B.**, Cernicharo J.  
A spectroscopic survey of Orion KL between 41.5 and 50 GHz.  
Astronomy and Astrophysics, 605, A76, 09/2017  
<http://dx.doi.org/10.1051/0004-6361/201629936>
- Kristensen L. E., van Dishoeck E. F., Mottram J. C., Karska A., Yıldız U. A., Bergin E. A., Bjerkele P., Cabrit S., Doty S., Evans N. J., Gusdorf A., Harsono D., Herczeg G. J., Johnstone D., Jørgensen J. K., ..., **Tafalla M.**, et al.  
Origin of warm and hot gas emission from low-mass protostars: Herschel-HIFI observations of CO J = 16-15. I. Line profiles, physical conditions, and H<sub>2</sub>O abundance.  
Astronomy and Astrophysics, 605, A93, 09/2017  
<http://dx.doi.org/10.1051/0004-6361/201630127>
- Codella C., Ceccarelli C., Caselli P., Balucani N., Barone V., Fontani F., Lefloch B., Podio L., Viti S., Feng S., **Bachiller R.**, Bianchi E., Dulieu F., Jiménez-Serra I., Holdship J., et al.  
Seeds of Life in Space (SOLIS). II. Formamide in protostellar shocks: Evidence for gas-phase formation.  
Astronomy and Astrophysics, 605, L3, 09/2017  
<http://dx.doi.org/10.1051/0004-6361/201731249>
- Leroy A. K., Schinnerer E., Hughes A., Kruijssen J. M. D., Meidt S., Schrubba A., Sun J., Bigiel F., Aniano G., Blanc G. A., Bolatto A., Chevance M., Colombo D., Gallagher M., **García-Burillo S.**, et al.  
Cloud-scale ISM Structure and Star Formation in M51.  
The Astrophysical Journal, 846, 71, 09/2017  
<http://dx.doi.org/10.3847/1538-4357/aa7fef>
- Kirk H., Friesen R. K., Pineda J. E., Rosolowsky E., Offner S. S. R., Matzner C. D., Myers P. C., Di Francesco J., Caselli P., Alves F. O., **Chacón-Tanarro A.**, Chen H.-H., Chun-Yuan Chen M., Keown J., Punanova A., et al.  
The Green Bank Ammonia Survey: Dense Cores under Pressure in Orion A.  
The Astrophysical Journal, 846, 144, 09/2017  
<http://dx.doi.org/10.3847/1538-4357/aa8631>

- **Fuente A.**, Baruteau C., Neri R., Carmona A., Agúndez M., Goicoechea J. R., **Bachiller R.**, Cernicharo J., Berné O.  
Probing the Cold Dust Emission in the AB Aur Disk: A Dust Trap in a Decaying Vortex?  
The Astrophysical Journal, 846, L3, 09/2017  
<http://dx.doi.org/10.3847/2041-8213/aa8558>
- Quénard D., Vastel C., Ceccarelli C., Hily-Blant P., Lefloch B., **Bachiller R.**  
Detection of the HC<sub>3</sub>NH<sup>+</sup> and HCNH<sup>+</sup> ions in the L1544 pre-stellar core.  
Monthly Notices of the Royal Astronomical Society, 470, 3194, 09/2017  
<http://dx.doi.org/10.1093/mnras/stx1373>
- Podio L., Codella C., Lefloch B., Balucani N., Ceccarelli C., **Bachiller R.**, Benedettini M., Cernicharo J., Faginas-Lago N., Fontani F., Gusdorf A., Rosi M.  
Silicon-bearing molecules in the shock L1157-B1: first detection of SiS around a Sun-like protostar.  
Monthly Notices of the Royal Astronomical Society, 470, L16, 09/2017  
<http://dx.doi.org/10.1093/mnrasl/slx068>
- Gerin M., Pety J., Commerçon B., **Fuente A.**, Cernicharo J., Marcelino N., Ciardi A., Lis D. C., Roueff E., Wootten H. A., Chapillon E.  
Evidence for disks at an early stage in class 0 protostars?  
Astronomy and Astrophysics, 606, A35, 10/2017  
<http://dx.doi.org/10.1051/0004-6361/201630187>
- Hunt L. K., Weiß A., Henkel C., Combes F., **García-Burillo S.**, Casasola V., Caselli P., Lundgren A., Maiolino R., Menten K. M., Testi L.  
Physical conditions of the molecular gas in metal-poor galaxies.  
Astronomy and Astrophysics, 606, A99, 10/2017  
<http://dx.doi.org/10.1051/0004-6361/201731000>
- Hacar A., **Tafalla M.**, Alves J.  
Fibers in the NGC 1333 proto-cluster.  
Astronomy and Astrophysics, 606, A123, 10/2017  
<http://dx.doi.org/10.1051/0004-6361/201630348>
- **Chacón-Tanarro A.**, Caselli P., Bizzocchi L., Pineda J. E., Harju J., Spaans M., Désert F.-X.  
Search for grain growth toward the center of L1544.  
Astronomy and Astrophysics, 606, A142, 10/2017  
<http://dx.doi.org/10.1051/0004-6361/201630265>
- **Fuente A.**, Gerin M., Pety J., Commerçon B., Agúndez M., Cernicharo J., Marcelino N., Roueff E., Lis D. C., Wootten H. A.



Chemical segregation in the young protostars Barnard 1b-N and S. Evidence of pseudo-disk rotation in Barnard 1b-S.

Astronomy and Astrophysics, 606, L3, 10/2017

<http://dx.doi.org/10.1051/0004-6361/201730963>

- Cernicharo J., Agúndez M., Velilla Prieto L., Guélin M., Pardo J. R., Kahane C., Marka C., Kramer C., Navarro S., Quintana-Lacaci G., Fonfría J. P., Marcelino N., **Tercero B.**, Moreno E., Massalkhi S., et al.  
Discovery of methyl silane and confirmation of silyl cyanide in IRC +10216.  
Astronomy and Astrophysics, 606, L5, 10/2017  
<http://dx.doi.org/10.1051/0004-6361/201731672>
- Bianchi E., Codella C., Ceccarelli C., Taquet V., Cabrit S., Bacciotti F., **Bachiller R.**, Chapillon E., Gueth F., Gusdorf A., Lefloch B., Leurini S., Podio L., Rygl K. L. J., Tabone B., et al.  
Deuterated methanol on a solar system scale around the HH212 protostar.  
Astronomy and Astrophysics, 606, L7, 10/2017  
<http://dx.doi.org/10.1051/0004-6361/201731404>
- Rayner T. S. M., Griffin M. J., Schneider N., Motte F., Könyves V., André P., Di Francesco J., Didelon P., Pattle K., Ward-Thompson D., Anderson L. D., Benedettini M., Bernard J.-P., Bontemps S., Elia D., ..., **Fuente A.**, et al.  
Far-infrared observations of a massive cluster forming in the Monoceros R2 filament hub.  
Astronomy and Astrophysics, 607, A22, 10/2017  
<http://dx.doi.org/10.1051/0004-6361/201630039>
- Emonts B. H. C., Colina L., Piqueras-López J., **García-Burillo S.**, Pereira-Santaella M., Arribas S., Labiano A., Alonso-Herrero A.  
Outflows of hot molecular gas in ultra-luminous infrared galaxies mapped with VLT-SINFONI.  
Astronomy and Astrophysics, 607, A116, 11/2017  
<http://dx.doi.org/10.1051/0004-6361/201731508>
- Kraus M., Liimets T., Cappa C. E., Cidale L. S., Nickeler D. H., Duronea N. U., Arias M. L., Gunawan D. S., Oksala M. E., Fernandes M. B., Maravelias G., Curé M., **Santander-García M.**  
Resolving the Circumstellar Environment of the Galactic B[e] Supergiant Star MWC 137 from Large to Small Scales.  
The Astronomical Journal, 154, 186, 11/2017  
<http://dx.doi.org/10.3847/1538-3881/aa8df6>
- Ribas Á., Espaillat C. C., Macías E., Bouy H., Andrews S., Calvet N., Naylor D. A., **Riviere-Marichalar P.**, van der Wiel M. H. D., Wilner D.

Far-infrared to Millimeter Data of Protoplanetary Disks: Dust Growth in the Taurus, Ophiuchus, and Chamaeleon I Star-forming Regions.

The Astrophysical Journal, 849, 63, 11/2017

<http://dx.doi.org/10.3847/1538-4357/aa8e99>

- Keown J., Di Francesco J., Kirk H., Friesen R. K., Pineda J. E., Rosolowsky E., Ginsburg A., Offner S. S. R., Caselli P., Alves F., **Chacón-Tanarro A.**, Punanova A., Redaelli E., Seo Y. M., Matzner C. D., et al.  
The Green Bank Ammonia Survey: Observations of Hierarchical Dense Gas Structures in Cepheus-L1251.  
The Astrophysical Journal, 850, 3, 11/2017  
<http://dx.doi.org/10.3847/1538-4357/aa93ec>
- Sowicka P., Jones D., Corradi R. L. M., Wesson R., García-Rojas J., **Santander-García M.**, Boffin H. M. J., Rodríguez-Gil P.  
The planetary nebula IC 4776 and its post-common-envelope binary central star.  
Monthly Notices of the Royal Astronomical Society, 471, 3529, 11/2017  
<http://dx.doi.org/10.1093/mnras/stx1697>
- Dodson R., **Rioja M. J.**, Jung T., Gómez J. L., **Bujarrabal V.**, Moscadelli L., Miller-Jones J. C. A., Tetarenko A. J., Sivakoff G. R.  
The science case for simultaneous mm-wavelength receivers in radio astronomy.  
New Astronomy Reviews, 79, 85, 11/2017  
<http://dx.doi.org/10.1016/j.newar.2017.09.003>
- Aalto S., Muller S., Costagliola F., Sakamoto K., Gallagher J. S., Falstad N., König S., Dasyra K., Wada K., Combes F., **García-Burillo S.**, Kristensen L. E., Martín S., van der Werf P., Evans A. S., et al.  
Luminous, pc-scale CO 6-5 emission in the obscured nucleus of NGC 1377.  
Astronomy and Astrophysics, 608, A22, 12/2017  
<http://dx.doi.org/10.1051/0004-6361/201730650>
- **García-Burillo S.**, Viti S., Combes F., **Fuente A.**, **Usero A.**, Hunt L. K., Martín S., Krips M., Aalto S., Aladro R., Ramos Almeida C., Alonso-Herrero A., Casasola V., Henkel C., **Querejeta M.**, et al.  
ALMA imaging of C<sub>2</sub>H emission in the disk of NGC 1068.  
Astronomy and Astrophysics, 608, A56, 12/2017  
<http://dx.doi.org/10.1051/0004-6361/201731862>
- Favre C., López-Sepulcre A., Ceccarelli C., Dominik C., Caselli P., Caux E., **Fuente A.**, Kama M., Le Bourlot J., Lefloch B., Lis D., Montmerle T., Padovani M., Vastel C.  
The onset of energetic particle irradiation in Class 0 protostars.  
Astronomy and Astrophysics, 608, A82, 12/2017  
<http://dx.doi.org/10.1051/0004-6361/201630177>

- Ceccarelli C., Caselli P., Fontani F., Neri R., López-Sepulcre A., Codella C., Feng S., Jiménez-Serra I., Lefloch B., Pineda J. E., Vastel C., Alves F., **Bachiller R.**, Balucani N., Bianchi E., et al.  
Seeds Of Life In Space (SOLIS): The Organic Composition Diversity at 300-1000 au Scale in Solar-type Star-forming Regions.  
The Astrophysical Journal, 850, 176, 12/2017  
<http://dx.doi.org/10.3847/1538-4357/aa961d>
- Redaelli E., Alves F. O., Caselli P., Pineda J. E., Friesen R. K., **Chacón-Tanarro A.**, Matzner C. D., Ginsburg A., Rosolowsky E., Keown J., Offner S. S. R., Di Francesco J., Kirk H., Myers P. C., Hacar A., et al.  
The Green Bank Ammonia Survey: Unveiling the Dynamics of the Barnard 59 Star-forming Clump.  
The Astrophysical Journal, 850, 202, 12/2017  
<http://dx.doi.org/10.3847/1538-4357/aa9703>
- **Fuente A.**, Goicoechea J. R., Pety J., Le Gal R., Martín-Doménech R., Gratier P., Guzmán V., Roueff E., Loison J. C., Muñoz Caro G. M., Wakelam V., Gerin M., **Riviere-Marichalar P.**, Vidal T.  
First Detection of Interstellar S<sub>2</sub>H.  
The Astrophysical Journal, 851, L49, 12/2017  
<http://dx.doi.org/10.3847/2041-8213/aaa01b>
- Audibert A., Combes F., **García-Burillo S.**, Salomé P.  
Probing the gas fuelling and outflows in nearby AGN with ALMA.  
Frontiers in Astronomy and Space Sciences, 4, 58, 12/2017  
<http://dx.doi.org/10.3389/fspas.2017.00058>
- Molina S., Gómez J., Dodson R., **Rioja M.**  
Magnetic Field Studies in BL Lacertae through Faraday Rotation and a Novel Astrometric Technique.  
Galaxies, 5, 97, 12/2017  
<http://dx.doi.org/10.3390/galaxies5040097>